

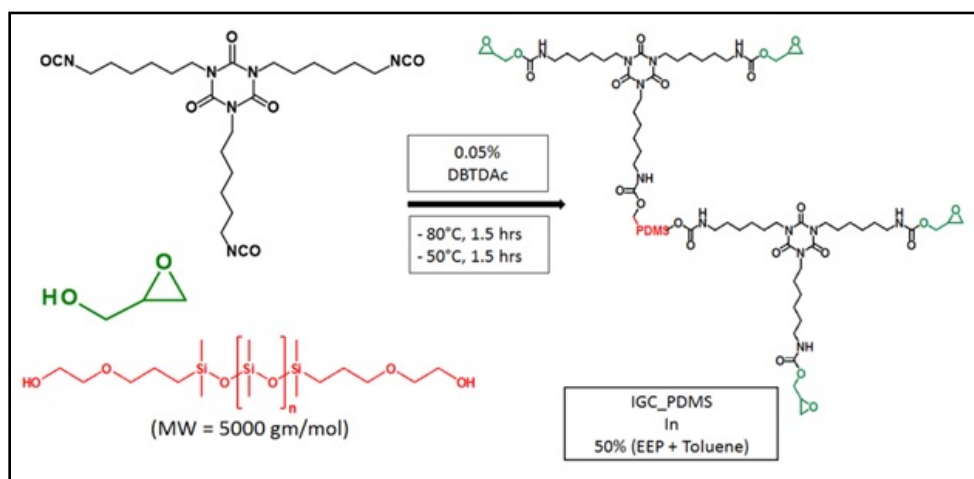
## NOVEL NON-ISOCYANATE SILOXANE-POLYURETHANE COATINGS (RFT-517)

### Technology:

The technology is a siloxane-modified glycidyl carbamate resin and a coating composition utilizing amine crosslinkers.

### Invention Summary:

Glycidyl carbamate (GC) functional resins are used due to their high mechanical strength, toughness and abrasion and chemical resistance associated with polyurethanes as well as the convenience of epoxy-amine chemistry. Webster et al. have combined these resins with polydimethylsiloxane to develop self-stratified coatings that yield coatings having low surface energy as well as reduce the hazards of isocyanates.



### Benefits:

- Combines properties of polyurethanes with ease of epoxy-amine chemistry
- Decreased hazards associated with isocyanates in current coatings
- Excellent strength and adhesion with low surface energy
- Improved durability and adhesion over silicone elastomers
- Applications in marine ship hull coatings, anti-graffiti coatings, and anti-ice coatings

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**Patents:**

This technology is the subject of US Patent No. [10,759,950](#) and is available for licensing/partnering opportunities.

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